**Hub and Bearing Assembly Removal** 

## TIMKEN

- Normal procedures should be followed to remove the wheel from the hub, leaving only the hub and bearing assembly on the axle end.
- Undo and remove the locking nut arrangement. Note: Discard any single use locking and adjustment components.
- The hub and bearing can now be removed from the axle as a complete assembly.Be careful not to damage the axle stub threads when removing the hub and bearing assembly.
- 4. Inspect the axle stub for excessive wear, and signs of damage. Protect the stub from accidental damage whilst exposed.
- The Inner Rings (Cones) are connected by a spring steel bore clip. Remove this using a suitable lever.

## **WARNING**

Failure to observe the following instructions could result in equipment failure leading to a risk of serious bodily harm.

Care must be taken when removing the bore clip as it can be released abruptly.

Always wear eye protection.

- Remove any ABS tone ring with care so as not to cause distortion or compromise fit security, this component might be re-used.
- 7. With a suitable punch or tool (not Hardened steel or brass), drift out the Inboard inner ring (cone). Take care not to damage the abutments inside the hub and other bearing components. Invert the hub assembly and remove the outboard inner ring (cone) in a similar manner.
- Remove the two outer rings by pressing or use of a drift on the exposed portion of the outer ring (Cup) backfaces.
- Clean the hub of all lubricant and debris ready for full hub inspection, taking special care of the bore abutment, bearing and seal mating surfaces.
- 10. Discard all the old bearing components.

#### CAUTION

Failure to follow these cautions may result in property damage.

- Failure to lubricate the axle stubs can lead to excessive fretting damage during service, and hinder future removal;
- Ensure horizontal alignment between the hub assembly and shaft during re-installation to avoid dislodging the cone bore clip or damaging the spindle threads;
- Secure the hub assembly with the locking nut assembly according to the Vehicle Manufacturer's instructions

## TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets high-performance steel as well as mechanical components, including bearings, gears, chain and related mechanical power transmission products and services.

Stronger. Commitment. Stronger. Value. Stronger. Worldwide. Stronger. Together. | Stronger. By Design.

## **Automotive Aftermarket** Wheel Pac Repair Kits

This guide is to assist you to replace the wheel bearing assembly from the hub.

### WARNING

Failure to observe the following instructions could result in equipment failure leading to a risk of serious bodily harm.

Vehicle manfacturer's instructions should always be adhered to. Proper maintenance and handling practices are critical.

- 1. Inboard Seal
- 2. Inboard Installation Tool
- 3. O-Rina
- 4. Inboard Sub-assembly
- 5. Cone Bore Clip
- 6. Outboard Sub-assembly
- 7. Outboard Installation Tool
- 8. Outboard Seal

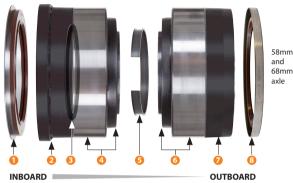


#### **Specific Information**

### **Hub** Maintenance and Re-assembly

# **OUTBOARD SEAL ORIENTATION**

58mm





NOTE:- The Wheel-Pac Repair Kits are pre-greased and care should be taken to ensure contamination of the grease does not occur.

Do not disassemble the plastic installation tool from the bearing until you are ready to install. The installation tool protects the bearing surfaces from accidental damage and reduces risk of grease contamination.

#### **INBOARD**

The bearings must be replaced as a matched unit. Correct bearing handling and installation procedures should be followed.

- 1. Prepare the hub for re-assembly by cleaning and inspecting for cracks, excessive wear, and signs of damage.
- 2. Place hub wheel studs facing down and remove the inboard sub-assembly from its bagging.
- 3. The black installation tool [Item 2] is already assembled on the bearing, press the inboard sub-assembly [Item 4] securely into the hub. Confirm correct seating with a 0.050mm feeler gauge.
- 4. Carefully remove the installation tool. Take great care not to contaminate the exposed grease at this stage.
- 5. The installation tool is formed to fit the seal. Invert the tool and locate the seal to the hub, locate the tool to the seal. Squarely press the seal [Item 1] into place.
- 6. Ensure that the pre-fitted O-Ring [Item 3] in the inboard assembly remains in its seating, as it should seat against the axle shaft abutment.







#### **OUTBOARD**

- 7. Invert the hub assembly, ready the outboard bearingassembly. [Items 6 and 7].
- 8. The installation tool is already assembled on the bearing: press the outboard bearing-assembly securely into the hub. Confirm correct seating with a 0.050mm feeler
- 9. Carefully remove the installation tool [Item 7]. Take great care not to contaminate the exposed grease at this stage.
- 10. Locate the seal, invert the tool to the seal and squarely press into place.
- 11. Connect the two inner rings (cones) by inserting the new spring steel Bore Clip [Item 5] securely. Ensure the Bore Clip is secure and fully home. An audible click will be heard and it will be visibly located squarely in the

#### CAUTION

Failure to follow these cautions may result in property damage.

Incorrect fitment of the bore clip at this stage will impede the hub refitting to the axle stub. There is risk of stub damage if the clip is not correctly fitted.

13. Re-fit the ABS tone ring, using a suitable tool to remove risk of distortion. Ensure is fully home.











